

## REMARKS

Claims 1-36 are pending in this application. All of the pending claims are rejected. Claims 1, 8-24, and 26-36 are currently amended. Reconsideration is respectfully requested.

The *Response to Arguments* at page 2 indicates that the arguments presented by applicant in the appeal brief filed April 13, 2009 are not persuasive. It is assumed that the examiner intended to state that the arguments are persuasive and that new grounds of rejection are being stated. Otherwise, it is not clear why the appeal was not forwarded to the BPAI. It is also noted that the new grounds of rejection are limited to a slight enlargement of two of the previously cited passages. The prior art references and reasons are repeated from the previous Office Action which predated the appeal. In particular, Sistanizadeh at column 2 is now cited for lines 37-67 rather than 63-67, and lines 1-40 at column 7 rather than lines 10-40.

The first substantive point stated in the *Response to Arguments* is that Sistanizadeh describes an application programming interface which receives input from a user application indicative of application-specific bandwidth management service requirements in the form of the "service level manager." For clarity, applicant is not suggesting that Sistanizadeh and others failed to contemplate that network bandwidth could be requested through an interface. The distinction is that the presently claimed invention receives input from a user application, whereas Sistanizadeh and others rely on manual input from personnel such as IT staff. The significance of this distinction can be illustrated by way of example. Suppose that an enterprise requires nightly data backup via a (user) backup application connecting an enterprise LAN in Boston with an enterprise LAN in Seattle. The enterprise IT staff would typically plan for leasing carrier resources for transport of the maximum anticipated throughput between the LANs.

Usually that bandwidth would have to be leased for 24/7 availability even though it might be used for only one hour per day because of manual provisioning on the part of the carrier. Even assuming Sistanizadeh would allow the IT staff to schedule bandwidth availability for only one hour per day, the maximum anticipated necessary bandwidth would be requested in order to avoid overloading the leased resources. In contrast, the presently claimed invention allows the data backup application to specify requirements. Thus, if requirements are very great on one night, moderate on another night, and non-existent on yet another night, on each night the bandwidth request (and cost) would be modified to suit current requirements. Even if Sistanizadeh were to maintain around-the-clock IT staff it is not practical to manually determine requirements for multiple applications in real time (the example above is very simple – there may be many different requirements for a given user application). In sum, Sistanizadeh fails to describe an application programming interface which receives input *from a user application* indicative of application-specific bandwidth management service requirements.

The second substantive point stated in the *Response to Arguments* is that applicant's argument about exposure of the user interface to the user is flawed because exposure of an interface is a fundamental requirement of all systems, in support of which the Office Action states that "of course, they have to input their parameters on the user interface, and the application program resides on the user interface manages the user's network based on the received input parameters using an agent." Setting aside the fact that the quoted statement reinforces the distinction described in the paragraph above, the examiner has misunderstood the point being made by applicant. The exposure that must be avoided is of the optical network topology to the user. In a single network run by one company it might be acceptable to allow everyone access to topology information. However, the presently claimed invention is directed to the real world scenario where

enterprises (users) have private networks that are interconnected by carrier networks, e.g., Walmart store networks interconnected by Verizon and AT&T. It is a non-trivial problem to enable user applications operating in such user network segments to request and provision carrier network resources without exposing carrier network topology to, for example, curious or malicious user IT staff. Consequently, it is not the ability to input requirements that causes access to the interface to be a problem – it is the fact that Sistanizadeh also allows access to topology information through the interface.

Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,681,232 (Sistanizadeh) in view of US 6,728,484 (Ghani). As mentioned above, the rejections are substantially identical to those that were appealed, except that column 2 is now cited for lines 37-67 rather than 63-67, and lines 1-40 at column 7 rather than lines 10-40. The expanded section of column 2 describes the drawback described in the paragraph above. In particular<sup>1</sup>:

The database(s) also receive and store dynamic service-related operations data, from agents in the network. A persistence layer module processes data from the network database(s). This processing provides **data representing a dynamic view of the topology as well as data representing operations of the extended-area data communications network**. The service level manager also includes a user interface, for **providing information to** and receiving inputs from **users**. As disclosed, the user interface is **accessible** both by carrier staff personnel and by **end-use customers**. (emphasis added)

Note that carrier network topology and other sensitive information is in the management application database, and the management application has an interface accessible to the customer to provide information to users. It follows that the network topology and other information are exposed to, or at least inadequately protected from, the customer. The expanded section of column 7 describes implementation details. The examiner appears to

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<sup>1</sup> Column 2, lines 42-52

cite the new text because it references a server and an interface but, as already described above, applicant does not claim to have invented the first server or interface for bandwidth management in this application. The utilization of input from the applications that will use the bandwidth and shielding of carrier network topology are the features which are the subject of the arguments advanced by applicant.

With regard to the other rejections based on section 103, the arguments presented in the appeal brief are incorporated by reference. It is apparent that the points applicant attempted to make in the appeal brief were not fully appreciated. Consequently, it is hoped that the clarifying explanation in this response will convince the examiner of the validity of those arguments.

Claims 8-11, 20-23, and 26-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite. The claims are currently amended as suggested by the examiner. Withdrawal of the rejection is therefore requested.

Claims 1, 12, 24 and 31 are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. More particularly, the examiner asserts that the claims recite software *per se*. Claim 31 is currently amended to adopt the *Beauregard* format that the Office recently affirmed as acceptable. However, claims 1, 12 and 24 clearly recite physical things that may include software. In particular, claims 1 and 12 recite a "network device" and an "optical server," and claim 24 recites an "optical network" and an "optical server." 35 U.S.C. 101 defines four categories of inventions that Congress deemed to be the appropriate subject matter of a patent: processes, machines, manufactures and compositions of matter. The latter three categories define "things" or "products" while the first category defines "actions" (i.e., inventions that consist of a series of steps or acts to be performed). Claims 1, 12 and 24 recite "things" which are "products," and therefore fall under one of the acceptable categories.

Should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone the undersigned, Applicants' Attorney at 978-264-4001 so that such issues may be resolved as expeditiously as possible. For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

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Date

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